

I CLAIM:

1. A molding process for manufacturing a molded article, comprising the steps of:

(a) preparing a mold having a mold cavity that

5 has a shape conforming to that of the molded article;

(b) preparing a flexible hollow member and a supporting member, said hollow member having an open end and confining an inner passage that extends from said open end;

10 (c) inserting said supporting member into said flexible hollow member in a manner that said supporting member extends through said open end and into said inner passage in a direction along said inner passage so as to prevent said hollow member from 15 collapsing during a subsequent molding step;

(d) placing assembly of said hollow member and said supporting member in said mold cavity;

20 (e) closing said mold and introducing a molding raw material into said mold cavity around said hollow member to form a molded part around said hollow member in a manner that said open end of said hollow member is exposed from said molded part;

25 (f) removing said molded part together with said hollow member and said supporting member from said mold cavity; and

(g) withdrawing said supporting member and said hollow member from said molded part to form a channel

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in said molded part.

2. The molding process of Claim 1, wherein said inner passage has a curved section, and said supporting member is flexible in order to extend through and 5 along said curved section when said supporting member is inserted into said hollow member.

3. The molding process of Claim 1, wherein said hollow member is a tube with a bent portion, and said supporting member is a flexible wire that extends 10 through and along said bent portion.

4. The molding process of Claim 1, wherein said hollow member is made of silicone rubber.

5. The molding process of Claim 1, wherein said mold is formed with a positioning groove disposed 15 externally of and in communication with said mold cavity, said open end of said hollow member being positioned in said positioning groove so as to be exposed from said molded part, thereby facilitating subsequent withdrawal of said hollow member and said 20 supporting member from said molded part.

6. The molding process of Claim 1, wherein said molded part is transparent, and said hollow member has a patterned outer face so as to form said molded part with a patterned inner face that confines said 25 channel.

7. The molding process of Claim 1, wherein said supporting member has a pulling end, said mold cavity

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having an end portion, said molding process further comprising a step of preparing a flexible cap member that has a peripheral wall defining a recess which has an enlarged portion and a reduced portion reduced 5 from said enlarged portion, and a step of placing said cap member in said mold cavity in a manner that said peripheral wall fits snugly in said end portion of said mold cavity, that said open end of said hollow member is fittingly received in said enlarged portion 10 of said recess, and that said pulling end of said supporting member is fittingly received in said reduced portion of said recess so as to permit exposure of said open end of said hollow member and said pulling end of said supporting member from said 15 molded part, thereby facilitating withdrawal of said hollow member and said supporting member from said molded part.

8. A molding process for manufacturing a molded article, comprising the steps of:

20 (a) preparing a mold having a mold cavity that has a shape conforming to that of the molded article, and a positioning groove disposed externally of and in communication with said mold cavity;

25 (b) preparing a flexible tube and a flexible supporting wire;

(c) placing said tube in said mold cavity, and positioning one end of said tube in said positioning

groove;

5 (d) inserting said supporting wire into said tube in said mold cavity in a manner that said supporting wire extends into said tube along the length of said tube and is isolated from said mold cavity by said tube;

10 (e) closing said mold and introducing a molding raw material into said mold cavity around said tube to form a molded part that encloses a portion of said tube;

(f) removing said molded part together with said tube and said supporting wire from said mold cavity;

(g) withdrawing said supporting wire from said tube in said molded part; and

15 (h) withdrawing said tube from said molded part to form a channel in said molded part without disintegrating said tube.

9. The molding process of Claim 8, wherein said supporting wire is a metal wire.

20 10. The molding process of Claim 8, wherein said tube is made of silicone rubber.

11. The molding process of Claim 8, wherein said tube is bent.

25 12. The molding process of Claim 8, wherein said tube has a bent portion, and said supporting wire extends through said bent portion in a direction along said bent portion.

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13. The molding process of Claim 8, wherein said molding raw material is a metal.
14. The molding process of Claim 8, wherein said molding raw material is a resin.
- 5 15. The molding process of Claim 8, wherein said mold has two mold halves, said positioning groove being formed in one of said mold halves.